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Consortium de la démocratie électorale

Technical Report

CES EEC
Canadian Election Study | Étude électorale canadienne

Canadian Election Study 2019 – Phone Survey

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1. Study Description

The 43rd Canadian General Election was held on October 21, 2019. Advanis completed the Canadian Election Study 2019 on behalf of Western University. This Technical Report briefly outlines the design and conduct of the survey.

There were two phases of data collection. During the election campaign, telephone interviews were completed with 4,021 Canadian citizens. All respondents to the Campaign-Period Survey (CPS) were called or emailed after the election according to their stated preference and asked to complete the Post-Election Survey (PES) and 2,889 (72%) did so, with 2,067 (72%) completing over the phone and 822 (28%) completing online.

A modified random digit dialling (RDD) procedure was used to select telephone numbers for the CPS, and for landline sample in households with more than one adult Canadian citizen, the respondent was determined by using the birthday selection method. Interviewing commenced on September 10, 2019 (after the election was called) and concluded on the eve of the election on October 20, 2019. Interviews were completed every day with the exception of September 11, 2019 (to allow the team to assess the survey data from the soft launch), September 15, 2019, and Thanksgiving Day (October 14, 2019). A rolling daily quota by province and phone type was applied each day. Adjustments were made as necessary to even out data collection. Sample records were prioritized so that we would call previously dialed sample first until we reached a minimum of 6 attempts. A single message was left for each respondent if we were directed to their voicemail. Once 6 attempts had been made for a sample record without an eligible respondent being reached, the sample record was retired and a new sample record randomly selected to be called. If an eligible respondent was reached who requested a call back, a minimum of 4 further attempts were conducted to complete an interview after the initial contact. Also, towards the end of data collection, the minimum number of attempts was increased to minimize the volume of new sample being selected for calling. As such, the number of attempts made for certain records (and completed surveys) exceeded the minimum of 6 call attempts (see further details below).

At the end of the CPS, respondents were asked if they would prefer to complete the PES via phone or online and an email address was collected for those who indicated they would prefer to do the survey online. The data collection approach for the PES was then as follows:

- Respondents who indicated that they preferred to do the survey online:
    - Were sent an email invitation first. The email contained a link to the survey as well as a unique login and password for each respondent.
    - Were sent a reminder email four days after the initial email invitation if they had not yet completed the survey.
    - Were contacted via phone starting three days after the email reminder if they had not yet completed the survey.

        - Those not willing to do the survey over the phone were asked if they would prefer to complete the survey online and if so, their email address was confirmed and updated if needed.
    - Over the course of the data collection period, a combination of follow-up calls and email reminders was administered to maximize response rates. The calling and email frequency was tailored to the call and email results of each individual respondent.
- Respondents who indicated that they preferred to do the survey over the phone:
    - Were contacted via phone to complete the survey. Those not willing to do the survey over the phone were offered to receive a link to the survey via email in case their preference changed.

Calling for the PES started on October 22, 2019, the day after the election, and the first email invitations were sent on October 24, 2019, the third day after the election. All of the CPS respondents were contacted within ten days of the vote. Of course, not all respondents were available when first contacted and eight days after the election over 50 percent of the PES interviews were completed. (In 2015 it took nine days and in 2011 it took 14 days to complete this proportion of the PES interviews.) All of the calling and email contact was completed in the 31 days after the election, with the final interviews completed on November 21, 2019.

All telephone data collection was completed with Computer Assisted Telephone Interviewing (CATI). All web data collection was completed on the Advanis proprietary survey platform.

The naming conventions for the survey variables in the data file indicate the survey source (Q for CPS, P for PES). Where necessary to distinguish between the two survey sources for contextual variables such as survey completion date, language of the interview, etc. the suffix "_CES" or "_PES" has been used.

2. Sample Design

2.1 Introduction

The sample component for the 2019 Canadian Election Study was designed to represent the adult population of Canada defined as: Canadian citizens 18 years of age or older who reside in one of the ten Canadian provinces (thus excluding the territories). Because the initial survey (the CPS) was conducted by telephone, the small proportion of households in Canada without landline or wireless telephones were excluded from the sample population.

A dual sample frame that utilized both landline and wireless phone numbers was deployed. The dual-frame-with-overlap approach is the most widely-used approach for general population RDD sampling. The "with overlap" methodology treats the landline and wireless samples like "traditional" CATI samples, keeping everyone that qualifies. However, the survey is modified to ask the wireless sample respondents "Do you have a landline phone?" and ask the landline sample respondents "Do you have a cell phone?". This information is used to determine the overlap of the two frames (i.e., those who have both a wireless and a landline phone) and is incorporated during the weighting to correct for the higher selection probability of the overlap group (i.e., this cohort had two opportunities to be included in the sample). As the number of Canadians that do not have a landline phone continues to grow (estimated at 36% according to the 2017 Stats Canada Survey of Household Spending), if sufficient wireless phone sample were not included the data collected would have been unlikely to be representative of the Canadian population.

To that end, the CES sample was comprised of 66% wireless telephone numbers and 34% landline telephone numbers. Relatively more wireless sample than landline sample was called, since the number of Canadian households having wireless phones (90%) is substantially higher than the number of households having landline phones (64%). The landline numbers were obtained from ASDE, a sample provider. The wireless numbers were obtained from a list of randomly generated telephone numbers from across the country. The likelihood of being interviewed for the CES varied by province of residence (residents of the smaller provinces have a greater chance of being interviewed). In order to provide unbiased estimates for both phone ownership type (landline only / wireless only / both landline and wireless) and province, it is necessary to correct for these unequal probabilities of selection by weighting the data results.

2.2 Selection of Phone Numbers

The ideal sampling frame for the Canadian Election Study would have been a complete listing of all residential telephone numbers (both landlines and cell phones) in Canada. Unfortunately, such a listing does not exist. To select numbers Advanis employs a modified form of random digit dialling. All telephone numbers in Canada consist of an area code, a "central office code" or exchange (the first three digits of the telephone number), and a suffix or "bank" (the last four digits of the number).

2.2.1 Landline Sample

As mentioned, landline records were obtained from ASDE. The RDD frame of ASDE is based on a complete analysis of 120 million phone numbers listed in North American phone books, and the geocoding of all telephone exchanges (area code + three first digits of phone number xxx-nnn) in each country. This analysis is redone every 6 months with each issue of the Acxiom Infobases electronic database of phone numbers. The electronic directories are supplemented by the Telcordia list of all working exchanges in North America which is issued every month. Advanced sampling procedures ensure that records drawn from the ASDE RDD sample database are random and representative of the total population of available landline numbers.

2.2.2 Wireless Sample

The wireless sample was generated internally by Advanis. The approach to generating the wireless sample is pre-dialing phone numbers in blocks of exchanges that are assigned to wireless numbers to verify their service status. In-service records are added to the wireless sample list from which samples can be randomly drawn. The list is refreshed and augmented on an ongoing basis.

2.2.3 "Not-in-Service" and "Non-Residential" Phone Numbers

As well as household telephone numbers, the landline and wireless sample includes "not-in-service" and "non-residential" telephone numbers, as a result of the constantly changing nature of the landline and wireless sample lists. Typically, non-household numbers are identified the first time the interviewer calls, at which point the recruiting process is ceased and the call coded based on its outcome ("not-in-service", "non-residential", "Fax", etc.). Most of the interviewer's subsequent efforts are then directed at randomly selecting a respondent and encouraging the respondent to complete the interview.

2.3 Selection of Respondents

The second stage of the sample selection process was to determine the eligibility of the person answering the phone and, in the case of landline sample, the random selection of a respondent from the selected household. To be eligible for the interview the respondent had to be an adult (18 years of age or older) and a Canadian citizen. If there was more than one eligible person in the household at a landline phone number, the person with the next birthday was requested as the survey respondent.[1] The birthday selection method was used as it ensures a random selection of respondents and is a much less intrusive way to start an interview than asking about the number of people in the household, thus making it easier for the interviewer to secure the respondent's cooperation.

2.4 National Estimates

In order to produce national estimates it is necessary to correct for both the province of residence and the phone ownership type as these are both factors that influenced the sample design for the Canadian Election Study.[2] In order to determine the phone ownership type and hence the probability of inclusion

[1] See O'Rourke and Blair, 1983, for a review of the birthday selection method.

[2] Weighting to correct for unequal probabilities of selection, stratification, and other factors in order to improve sample estimates is common in survey research. For a brief discussion of complex samples and weighting see

of a particular respondent in the study, each respondent was asked at the end of the CPS if they have a wireless phone (if they completed on landline) or a landline phone (if they completed on wireless). Respondents were then assigned an ownership type of landline only, wireless only, both, or refused/don't know (if they did not answer the question about additional phone lines). Population proportions among the 10 provinces were taken from the 2016 Census[3] and 2017 data for phone ownership by province[4] was used to create a joint probability for phone ownership among each of the provinces. Respondents who refused to provide details about their phone ownership were given a phone ownership type population proportion equal to their sample proportion within province, so as not to artificially create population proportions for this subset. Weights are calculated by dividing the population proportion by the sample proportion for each subgroup, so that each is "adjusted up" or "adjusted down" in the overall picture to provide a sample distribution representative of the joint population proportion on the province and phone ownership metrics.

Table 2.1 below details the phone ownership type within province, and the corresponding weight for each combination among the 4,021 CPS respondents.

Ornstein, A Companion to Survey Research, 2013, pp 77-80; for a more complete review Groves et al., 2009, chapter 10.

[3] Statistics Canada, 2016 Census of Population, Statistics Canada Catalogue no. 98-400-X2016004.

[4] Statistics Canada, Table 11-10-0228-01 Dwelling characteristics and household equipment at time of interview, Canada, regions and provinces

Table 2.1: Weights for CPS

Province	Phone Ownership Type	Population Proportion	Sample Proportion	Weight per Respondent
Newfoundland and Labrador	Landline only	0.1613%	0.2984%	0.5404
	Wireless only	0.2550%	1.1689%	0.2181
	Both	1.1136%	3.5315%	0.3153
	DK / Refused	0.0000%	0.0000%	-
Prince Edward Island	Landline only	0.0470%	0.4476%	0.1051
	Wireless only	0.1282%	1.8155%	0.0706
	Both	0.2352%	2.7356%	0.0860
	DK / Refused	0.0000%	0.0000%	-
Nova Scotia	Landline only	0.3233%	0.3979%	0.8124
	Wireless only	0.8411%	2.0144%	0.4175
	Both	1.5452%	2.5616%	0.6032
	DK / Refused	0.0000%	0.0000%	-
New Brunswick	Landline only	0.2449%	0.4725%	0.5182
	Wireless only	0.3442%	1.2683%	0.2713
	Both	1.5950%	3.2579%	0.4896
	DK / Refused	0.0000%	0.0000%	-
Quebec	Landline only	3.3470%	1.4424%	2.3204
	Wireless only	7.3350%	8.1323%	0.9020
	Both	12.6997%	10.2959%	1.2335
	DK / Refused	0.0878%	0.0746%	1.1767
Ontario	Landline only	3.3139%	1.4673%	2.2585
	Wireless only	14.7198%	7.5603%	1.9470
	Both	20.2687%	10.9923%	1.8439
	DK / Refused	0.0952%	0.0497%	1.9132
Manitoba	Landline only	0.3354%	0.4974%	0.6744
	Wireless only	1.1970%	2.4621%	0.4862
	Both	1.9809%	3.5315%	0.5609
	DK / Refused	0.0000%	0.0000%	-
Saskatchewan	Landline only	0.1860%	0.3233%	0.5752
	Wireless only	1.2717%	3.1335%	0.4058
	Both	1.5327%	3.0341%	0.5052
	DK / Refused	0.0115%	0.0249%	0.4607
Alberta	Landline only	0.5793%	0.4476%	1.2942
	Wireless only	4.8960%	3.0589%	1.6010
	Both	5.7366%	3.5066%	1.6360
	DK / Refused	0.0000%	0.0000%	-
British Columbia	Landline only	0.9169%	1.2683%	0.7229
	Wireless only	5.4058%	7.7841%	0.6945
	Both	7.1986%	10.8679%	0.6624
	DK / Refused	0.0506%	0.0746%	0.6788
Total		**100.0%**	**100.0%**	

In the CPS dataset, this variable is simply named “weight”.

In the PES dataset, the same weighting scheme was applied, but the sample proportions only took into account those who answered both the CPS and the PES. The same population proportions were used with the exception of adjusting for the respondents who had refused to provide additional details about their phone ownership in the CPS survey.

Table 2.2 below details the phone ownership type within province, and the corresponding weight for each combination among the 2,889 PES respondents.

Table 2.2: Weights for PES

Province	Phone Ownership Type	Population Proportion	Sample Proportion	Weight per Respondent
Newfoundland and Labrador	Landline only	0.1613%	0.2769%	0.5284
	Wireless only	0.2550%	1.1423%	0.2232
	Both	1.1136%	3.5999%	0.3094
	DK / Refused	0.0000%	0.0000%	-
Prince Edward Island	Landline only	0.0470%	0.4846%	0.0971
	Wireless only	0.1282%	1.9038%	0.0673
	Both	0.2352%	2.9076%	0.0809
	DK / Refused	0.0000%	0.0000%	-
Nova Scotia	Landline only	0.3233%	0.5192%	0.6226
	Wireless only	0.8411%	1.8692%	0.4500
	Both	1.5452%	2.6999%	0.5723
	DK / Refused	0.0000%	0.0000%	-
New Brunswick	Landline only	0.2449%	0.5538%	0.4422
	Wireless only	0.3442%	1.1076%	0.3107
	Both	1.5950%	3.3576%	0.4751
	DK / Refused	0.0000%	0.0000%	-
Quebec	Landline only	3.3536%	1.5922%	2.1062
	Wireless only	7.3495%	7.1305%	1.0307
	Both	12.7248%	10.7996%	1.1783
	DK / Refused	0.0415%	0.0346%	1.2001
Ontario	Landline only	3.3103%	1.4192%	2.3326
	Wireless only	14.7039%	7.0613%	2.0823
	Both	20.2467%	10.9034%	1.8569
	DK / Refused	0.1366%	0.692%	1.9739
Manitoba	Landline only	0.3354%	0.5538%	0.6057
	Wireless only	1.1970%	2.4922%	0.4803
	Both	1.9809%	3.7729%	0.5250
	DK / Refused	0.0000%	0.0000%	-
Saskatchewan	Landline only	0.1867%	0.3461%	0.5393
	Wireless only	1.2766%	2.9768%	0.4288
	Both	1.5385%	3.4614%	0.4444
	DK / Refused	0.0000%	0.0000%	-
Alberta	Landline only	0.5793%	0.5538%	1.0461
	Wireless only	4.8960%	2.8384%	1.7250
	Both	5.7366%	3.7729%	1.5204
	DK / Refused	0.0000%	0.0000%	-
British Columbia	Landline only	0.9188%	1.3153%	0.6985
	Wireless only	5.4165%	7.2690%	0.7452
	Both	7.2129%	11.1803%	0.6451
	DK / Refused	0.0237%	0.0346%	0.6855
Total		**100.0%**	**100.0%**	

In the PES dataset, this variable is also simply named "weight" (it replaces the weight from CPS as the data has been re-weighted to account for fewer respondents who provided answers to the full two-part Canadian Election Study).

2.5 Daily Sample Distribution for the Campaign-Period Survey

It was important to the design of the study to consistently interview a representative cross-section of Canadians over a rolling three-day average to ensure that any events occurring during the campaign period did not drastically affect survey results such as, but not limited to, support for specific policy issues, predictions of the results of the election, and ratings of the Prime Minister or the opposition leaders.[5] Similarly, utilization of a rolling cross section sample facilitates division of the campaign-period data set into temporal components.

The number of interviews per day varies in part because some days (for example Fridays) tend to have lower co-operation rates and other days (e.g., Monday through Thursday) have higher rates. Other factors such as the weather ("nice" days have lower co-operation rates), the complement of interviewers working each shift (there is variation among interviewers in the response rates they obtain), and the number of days before the vote (all things being equal, co-operation increases the closer to the vote the interview attempt is made). However, this variation is less pronounced when the number of completed interviews is averaged over a three- or five-day period.

2.6 Post-Election Survey Sample

The sample for the Post-Election survey was comprised of respondents to the CPS. At the end of the CPS, interviewers ensured that they had a first name or some other identifier (such as the respondent's initials or position in the household, e.g., mother) along with the preferred method of contact for the PES, either by telephone or email. At the start of the PES, contact information for all willing CPS respondents was loaded into the Advanis survey platform and participants were called or emailed (at the address they provided at the end of CPS) a unique link to complete the survey online. Calling was done in a random order, and unrelated to the order of completion of CPS, any survey responses, or any other such metric. For those wishing to complete by telephone, the interviewer called and asked for the person by name or identifier as collected at the end of CPS.

[5] The importance of campaign dynamics in understanding election results has been documented by a number of researchers (Nevitte, Blais, Gidengil, and Nadeau, 2000; Holbrook, 1996; Blais and Boyer, 1996; Johnston, Blais, Gidengil, and Nevitte, 1996; Johnston, Blais, Brady and Crête, 1992; Bartels, 1988; and Brady and Johnston, 1987).

3. Data Collection

3.1 Introduction

A description of the data collection procedures is outlined in this section of the technical documentation. Computer Assisted Telephone Interviewing (CATI) was used for data collection along with online data collection on Advanis' internal systems. All interviewing was completed by Advanis with interviewers located throughout Canada. Supervisors monitored (listened to) about 10 percent of interviewers' calls to coach interviewers in following procedures and to verify that the interviewers were reading questions and recording answers correctly.

3.2 Data Collection Procedures

3.2.1 CPS and PES Number of Calls

In order to maximize the chances of getting a completed interview from each telephone number, call attempts were made during the day and the evening - for both week and weekend days. In the CPS, typically between two and four call attempts were made each day (split between day and evening hours) during the first four days that a sample was released. Over half of the interviews completed in the CPS required only one or two call attempts, while just over two percent of the completed interviews required ten or more calls (Table 3.1). For CPS, of the 19,866 records called more than 6 times, 5,994 (30%) were callback appointments. The remainder were called more than 6 times to minimize the amount of fresh sample needing to be drawn towards the end of data collection. On PES, 977 records were contacted more than 6 times. Of those, 502 (51%) were callback appointments.

Table 3.1 Call Attempts Required to Obtain Completed Telephone Interview

	CPS		PES	
Attempts	**Number**	**Percentage**	**Number**	**Percentage**
1	1313	32.7%	604	29.2%
2	918	22.8%	465	22.5%
3	497	12.4%	312	15.1%
4	368	9.2%	206	10.0%
5	284	7.1%	125	6.0%
6	207	5.1%	121	5.9%
7-9	343	8.5%	187	9.0%
10-15	91	2.3%	47	2.3%
Total	**4,021**	**100%**	**2,067**	**100%**

Slightly more intensive call efforts were required to complete the PES as compared to the CPS. In the latter, nearly 16 percent of the interviews took six or more calls, while over 17 percent of the PES interviews took six or more call attempts. The variables "num_attempts_CES" and "num_attempts_PES" in the datasets identify the number of calls required to obtain a completion from each of the surveys (applicable only to CATI completes for PES).

The careful attention to the number and timing of call backs is designed to increase the response rate, thereby improving sample representativeness. Many researchers have found that respondents who are 'hard-to-reach' have characteristics that are somewhat different from typical survey responders (Fitzgerald and Fuller, 1982). A cursory review of the 2019 data file indicates that 'hard to reach respondents' (those who were interviewed after more rather than fewer call attempts in the CPS) were more likely to have volunteered for a group or organization in the past 12 months and have a higher household income, and in the PES the 'hard-to-reach respondents' were more likely to be under 55 years of age, have higher levels of education and household income, and live in a suburb of a large town or city.

3.3 Response and Re-interview Rates

3.3.1 Campaign Period Survey Response Rate

Details on the calculation of the response rate for the 2019 CPS are as follows. For comparison purposes the calculations mirror what was done in the 2015 study. Of the 95,424 telephone numbers included in the sample, 53,624 were identified as being eligible households (completions [n=4,021] + refusals [n=44,304] + call backs [n=5,299], see Table 3.2). Non-eligible households (where the respondent was unable to speak English or French, was not physically or mentally healthy enough to complete the interview, was not a Canadian citizen, etc. [n=2,463]), and non-residential and not-in-service numbers ([n=14,746]) accounted for 17,209 of the telephone numbers. It was not possible to determine the eligibility status for 24,591 of the sample telephone numbers. For response rate calculations, it was assumed that the proportion of these sample records which were eligible was the same as it was in the rest of the sample.

Table 3.2 Final Sample Disposition and Response Rate: 2019 CPS

Results	Number	Percent
Completions	4,021	4.2%
Outbound completions	3,854	
Inbound completions	167	
Refusals	44,304	46.4%
Call backs	5,299	5.6%
Ill/language problem/absent/not a citizen	2,463	2.6%
Not-in-service & non-residential	14,746	15.5%
Eligibility not determined (Did not answer)	24,591	25.8%
Total sample of numbers	**95,424**	**100%**
Total number of households determined eligible	53,624	
Total number of households determined not eligible	17,209	
Household eligibility rate	0.75704827	
Estimated number of eligible households	72,241	
Response rate	5.6%	
Completion rate	7.5%	completions / known eligibles
Participation rate	8.3%	completions / (completions + refusals)

This proportion, or "household eligibility rate" was 0.757 (eligibles [53,624]/(eligibles [53,624] + not eligibles [17,209]) = 0.75704827). The estimated total number of eligibles was then computed as 72,241 (53,624 + [0.757 x 24,591] = 72,241). Dividing the number of completions (4,021) by the estimated number of eligibles (72,241) gives a final response rate of 5.6 percent.

The rate is 32%pt lower than that achieved 4 years earlier for the 2015 CPS. The lower response rate is indicative of a similar trend in declining response rates at Advanis and as reported by American survey researchers starting in the late 1990s. See reports by Curtin, Presser and Singer, 2005 and Groves, Dillman, Eltinge and Little, 2002.

3.3.2 Post-Election Survey Re-interview Rate

When completing the CPS survey, respondents were given the chance to provide an email address for completing the PES survey. 1,328 respondents requested the survey by email. At the start of field, these respondents were sent an email and an email reminder before being called.

The overall PES re-interview rate in 2019 was 72%. 2,889 PES surveys were completed, with 2,067 (72%) completing over the phone and 822 (28%) completing online. Of the 1132 non-responses, 43% never answered a call, 25% were call-back appointments that never completed the survey, and 22% were refusals. 8% were no longer in service or no longer at that number. A more detailed breakdown is available in Table 3.3.

Table 3.3 Final Sample Disposition: 2019 PES

Results	Number
Completions	2,889
Online completions	822
Phone completions	2,067
Outbound completions	2,016
Inbound completions	51
Non-Responses	1,132
Did not answer	482
Call backs	286
Refusals	244
Not-in-service/wrong number	95
Illness/death/other Issue	13
No Consent	12

4. Questionnaire Issues and Data Processing

4.1 Introduction

Computer Assisted Telephone Interviewing (CATI) was used for data collection in the CPS and the PES, along with online data collection available for those who wished to use that methodology instead for the PES. With CATI, interviewers read questions from a computer screen and enter answers directly into the Advanis database. Online, respondents enter their own answers and data is captured directly into the Advanis database. Both platforms automate skip patterns so that interviewers or participants do not have to determine what questions are asked, allowing questions to be date stamped so they can be asked on certain set days (for example, "did you watch the debate?"), and providing a mechanism for randomizing response levels or question order within particular survey sections.

Note that survey variables in the campaign-period survey include the prefix Q. The prefix P is used to indicate that the survey variable is from the post-election survey. Auxiliary variables are appended with "_CES" or "_PES" to indicate to which survey they apply.

4.2 Assigning Missing Values

With some frequency, in both the CPS and PES surveys, whether or not a respondent is asked a question is conditional on answers to previous questions. For example, respondents who said they were unlikely or certain not to vote (Q10) were not asked questions about who they were going to vote for (Q11 and Q12). These respondents have "missing data" for the questions they skipped, as indicated by the variable value of -7 and label of "(-7) Skipped". This level has also been defined as a missing value for all questions in the datasets (though most questions will not have any skipped values if the survey structure did not indicate there to be any skip patterns). For the purposes of data analysis, responses of "Don't know" (value level -9) or "Refused" (value level -8) have been included as non-missing values in both the CPS and PES datasets.

By and large, the reason for using a -7 "Skipped" value is obvious based on the survey flow. Only Quebec residents were asked questions relating to the Bloc Québécois and its leader, Yves-François Blanchet (several questions in both CPS and PES; see section 4.3 for details). Respondents who indicated in the campaign-period survey that they were not working were not asked to describe their occupation or answer questions related to their job in the post-election survey (P52 and P53). In the PES survey, questions P36 through P41 were asked in a random order about rating each of the parties on the left-right political scale; if a respondent indicated they were not familiar with this scale they skipped the remainder of the questions in this section (including P42 asking to rate where they placed themselves on the scale) and next saw P43. In data cleaning Advanis has back-coded any missing values in these questions to the "Have not heard of left-right" response level, so that in the final dataset there is no missing values (-7) in any of P36-P42 questions regardless of the true order in which they were asked to each particular respondent.

The PES dataset contains only those respondents who completed both the CPS and PES surveys in their entirety. Respondents who completed only the CPS but not the PES are included in the CPS-only dataset.

4.3 Province Specific Questions

As mentioned above, there were eight questions (three in the CPS and five in the PES) which were only asked of respondents in Quebec. These were:

- rating the Bloc Québécois party (Q17 and P10),
- rating the leader of the Bloc Québécois, Yves-François Blanchet (Q23 and P16),
- rating the Bloc Québécois party on the political left-right scale (P39),
- opinion regarding Quebec sovereignty (Q43),
- view of how a possible Quebec separation would affect the 'language situation' in Quebec (P18), and
- view of how a possible Quebec separation would affect the 'standard of living' in Quebec (P19).

Respondents residing in a province other than Quebec have missing data for these questions.

4.4 Randomization in the CPS

When asking a series of questions about similar items on the same scale, it is important to vary the order in which those items are presented in order to reduce order bias among respondents, on both CATI and web-administered surveys.[6] The proprietary survey programming software used at Advanis makes it easy for randomization to be applied to response levels, questions, or entire sections of a survey.

4.4.1 Party and Leader Ratings

Respondents in the CPS were asked to rate the six main parties (PCs, Liberals, NDP, Green Party, People's Party and in Quebec the Bloc Québécois) in Q14 to Q19 and party leaders (Scheer, Trudeau, Singh, May, Bernier, and in Quebec Blanchet) in Q20 to Q25 on a 0 to 100 scale where 0 meant they 'really disliked' and 100 meant they 'really liked' the party/leader. As in previous versions of the CPS, the order in which a respondent was asked to rate the political parties and their leaders was randomized; this time however, the Green Party and Elizabeth May were included in this randomization and not asked at the end. Each respondent was randomly assigned a sequence for these six questions generated by the survey programming software at the time of the survey start. The same order that was used to ask about the party was used for the leaders (that is, if the NDP was the first party asked to be rated, then Jagmeet Singh was the first leader asked to be rated). Respondents who indicated on any individual question that they did not know the party or leader well enough to rate them were still asked about the other parties and leaders.

[6] For details about order effects, see Schuman and Presser, 1981.

4.5 Randomization in the PES

4.5.1 Party and Leader Ratings

Similar to the CPS, the PES asked respondents to rate the six main parties and their leaders each on a scale of zero ("strongly dislike") to ten ("strongly like"). Again this was done randomly, as described in section 4.4.1. The same randomization also applied to questions P36 to P41 asking the respondent to rate the parties on the political left-right scale. This randomization was done for both CATI and web methodologies.

4.5.2 Randomization of Response Levels

Some survey questions (P20, P21, P22, P29, P35) asked respondents to rate or provide their opinion or levels of agreement with a variety of like-minded statements. For these questions, the particular items to be rated (or agreed/disagreed with) were presented in a randomized order to avoid respondent fatigue bias and order bias in the overall dataset.

4.6 Coding of Open-Ended Questions and "Other Specify" Options

4.6.1 Open-Ended Questions

There were only two open-ended questions asked of all respondents in the two surveys. Respondents were asked about the most important issue to them personally in the election (Q7) and the main issue in the campaign (P1). Full verbatim responses to these questions are available on the interactive Advanis ORE provided along with the final datasets, as well as in the datasets themselves. No coding of the responses themselves was done.

In the PES, respondents who reported they were working for pay in the CPS were asked to describe their occupation (P52). Responses to this question also were not coded, and are available on the PES ORE and in the final PES dataset.

4.6.2 Other Specify Answers

Many of the questions allowed for a response other than those provided to respondents by interviewers or the survey instrument. For example, questions about vote intentions or voting behaviour included an option for the respondent to provide an answer other than the ones read by the interviewer (or shown on-screen, for web). When respondents gave these 'other' answers interviewers were asked to write out - specify - how the respondents answered; online respondents were asked to type in ("specify") their response. For every question, these 'other specify' answers were reviewed and, when possible, coded into existing response categories. For responses that did not match any of the existing response categories, the verbatim response was provide in the final dataset.

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